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(54) Title: APPLICATION OF DNA VECTORS FOR THE TREATMENT OF VIRAL INFECTION

(57) Abstract

The present invention relates to DNA-based constructs and methods for treating viral infections. In a preferred embodiment, an HSV based amplicon is topically applied to the site of an actively replicating HSV infection, initiating a four-tier anti-viral therapy. First, the resident virus packages the amplicon into HSV virions, *in situ*, thereby decreasing the infectious titer. Second, replication machinery of amplicon DNA are transported into the nervous system where IFN- γ expression promotes the establishment of latency. Third, HSV virion containing IFN- γ is exposed to emotional or physical stressor that reactivate the virus, amplicon-directed IFN- γ is expressed. Increasing titers of IFN- γ enforce viral latency.